

SECTION 02296

TRAFFIC DECKING

PART 1 - GENERAL

0.1 DESCRIPTION OF WORK

- A.** **Work Included:** This Section specifies designing, furnishing, installing, maintaining and removing decking of streets and sidewalks required for maintenance of traffic over excavated areas. Decking includes surface members and those supporting members upon which they directly rest.
- B.** **Related Work:** The following items are not included in this Section and will be performed under the designated Sections:
 - 1. Section 02360 - DRIVEN PILES.
 - 2. Section 05100 - STRUCTURAL STEEL.

0.2 SUBMITTALS

- A.** **Shop Drawings:**
 - 1. Show methods and sequence of installation and construction of decking and supporting members, including details of girders, beams, piles other than those forming a part of the excavation support system, accessories, surface materials, openings, ramps, guard rails, curbs, signs and access hatches.
 - 2. Include engineering calculations supporting the design and selection of materials and methods stamped by a registered engineer.
 - 3. Show methods and proposed sequence of removing decking and restoring the roadway.

0.3 QUALITY ASSURANCE

- A.** **DESIGN CRITERIA:** The Contractor shall be responsible for the design of decking. Comply with Contract Drawings and the following criteria.
 - 1. Design for AASHTO HS20 loading, indicated earth pressures, utility loads and other applicable live and dead loads, including construction equipment.
 - 2. Design structural steel in accordance with Section 05100.
 - 3. Design decking to include the following:
 - a. Wheel guards, railings, barricades and safety construction.
 - b. Access hatches for utilities and for fire hydrants and valves.
 - c. Clearance for existing and relocated utilities.

4. Select timber and lumber species and grade in accordance with ASTM D2555 to meet the design unit stresses.
5. Select anti-skid material of a type which, after installation, has a skid number at 30 mph or not less than 35 when tested in accordance with ASTM E274.
6. Maximum grade for vehicular ramps: five percent.
7. Maximum grade for pedestrian ramps: ten percent.
8. Provide minimum 12-inch high wheel guards of an accepted type securely installed around perimeter of openings in the decking.

0.4 PROJECT CONDITIONS

- A.** Ventilation. Provide ventilation as required to prevent the accumulation of gases below decking.
- B.** Illumination and Access. Provide illumination, galleries, walkways, and access facilities as necessary to enable inspection of the supporting system, lagging, bracing, and utilities maintained in place. Provide these facilities for the full length of decking where excavation is deeper than 20 feet. Provide suitable openings and flush covers for access to utility services located below the decking and for fire fighting access.

PART 2 - PRODUCTS

0.1 GENERAL

- A.** Decking materials may be either new or used. Used materials shall be sound and free of damage or defects, which would impair their suitability. Prior to installation of decking material the Engineer will inspect used material and may require that certain items of decking material be removed from the work.
- B.** Steel Plank: ASTM A 36, suitable for service, sized to limit deflection under full AASHTO H-20 and construction loading of 1/2 inch.
- C.** Wood and Timber Members: Suitable for service, sized to limit deflection under full AASHTO H-20 and construction loading of 1/2 inch.

PART 3 - EXECUTION

0.1 INSTALLATION

- A.** Piling other than that forming a part of the excavation support system: Section 02360 - DRIVEN PILES.

- B.** Install decking in accordance with the approved Shop Drawings. Securely fasten surface members to prevent movement under traffic conditions. Bed transition members, plates and ramps to existing pavement in asphalt patching material to prevent movement and noise under traffic conditions.
- C.** Apply anti-skid material at ramps, vehicular traffic intersections, and on traffic lanes approaching traffic intersections and pedestrian crossings for a distance of 150 feet, in accordance with the manufacturer's instructions.
- D.** Install decking within plus or minus one inch of the elevations indicated on the approved Shop Drawings; except, install and maintain surface elevations at abutting elements within 1/2 inch of each other.

0.2 MAINTENANCE

- A.** Immediately replace or repair broken or chipped pieces, bent or loose plates and deck members and protruding fasteners. Patch adjacent paving as potholes develop, and immediately re-secure and bed loose transition members, plates and ramps to the existing pavement.
- B.** Replace anti-skid materials when its effectiveness is less than 70 percent of the specified values.
- C.** Maintain the surfaces of the decking, transitions and ramps in vehicular and pedestrian traffic lanes and intersections free of dirt, snow, and ice and other deleterious materials.
- D.** Maintain the decking in an acceptable condition at all times.

0.3 REMOVAL

- A.** When no longer required, remove the decking and all temporary supporting members and dispose of them off the job site.
- B.** Cut off interior support members at the elevation shown on the approved Shop Drawings.
- C.** Remove exterior support members either to a level ten feet below finish ground level or to the top of the adjacent Authority subway structures, whichever elevation is higher.

PART 4 - MEASUREMENT AND PAYMENT

0.1 MEASUREMENT

- A.** Decking will be measured by the square foot of surface area installed within the limits of decking indicated.

- B.** No measurement will be made for the removal or replacement of decking for the Contractor's own convenience.
- C.** No separate measurement will be made for piling, transition members, plates or ramps to the existing pavement which may occur outside the indicated area. Such items will be considered incidental to the prosecution of the work.

0.2 PAYMENT

- A.** Decking will be paid for at the Contract unit price for the quantity determined as specified above.

0.3 PAYMENT ITEMS

ITEM NO.	DESCRIPTION	UNIT
0240.503	TRAFFIC DECKING	SF

END OF SECTION

NOTES TO THE DESIGNER

A. Any request to modify or waive the specification requirements listed below must be approved in writing by the MBTA's Director of Design:

1. None